

WHAT IS CLAIMED IS:

1. A method for predicting the number of software defects for an upcoming software release, comprising the steps of:

determining the relative size of the upcoming software release with respect to a

5 baseline software release; and

forecasting the number of software defects for the upcoming software release based on the relative size of the upcoming software release and the number of observed software defects for the baseline software release.

10 2. The method of claim 1, wherein determining the relative size of the upcoming software release includes the steps of:

determining the number of new test requirements for the upcoming software release;

determining the number of test requirements for the baseline software release; and

15 dividing the number of new test requirements for the upcoming software release by the number of test requirements for the baseline software release.

3. The method of claim 1, wherein the forecasting step includes multiplying the number of observed software defects for the baseline software release by the relative size

20 of the upcoming software release.

4. The method of claim 1, wherein the forecasting step includes multiplying the number of observed software defects for the baseline software release by the sum of the relative size of the upcoming software release and a regression defect factor.
- 5 5. The method of claim 1, wherein the forecasting step includes multiplying the number of observed software defects for the baseline software release by the sum of the relative size of the upcoming software release and a refactoring factor.
6. The method of claim 1, further including determining a quality measurement for
10 the upcoming software release based on the actual number of software defects for the upcoming software release relative to the forecasted number of software defects for the upcoming software release
7. The method of 6, wherein the quality measurement is used by a project
15 management system.
8. The method of claim 1, wherein number of software defects for the upcoming software release is used by a project management system.
- 20 9. The method of claim 1, wherein information used to forecast the software defects is graphically depicted.

10. The method of claim 1, wherein the baseline software release is selected by a user.

11. A system for predicting the number of software defects for an upcoming software release, comprising:

an input device for obtaining information regarding an upcoming software release and a baseline software release;

a processor for determining the relative size of the upcoming software release with respect to a baseline software release and forecasting the number of software defects for the upcoming software release based on the relative size of the upcoming software release and the number of observed software defects for the baseline software release; and

an output device for outputting the forecasted number of software defects for the upcoming software release.

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12. The system of claim 11, wherein the information obtained by the input device includes the number of new test requirements for the upcoming software release and the number of test requirements for the baseline software release, and the processor determines the relative size of the upcoming software release by dividing the number of new test requirements for the upcoming software release by the number of test requirements for the baseline software release.

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13. The system of claim 11, wherein the processor forecasts the number of software defects for the upcoming software release by multiplying the number of observed software defects for the baseline software release by the relative size of the upcoming software release.

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14. The system of claim 11, wherein the processor forecasts the number of software defects for the upcoming software release by multiplying the number of observed software defects for the baseline software release by the sum of the relative size of the upcoming software release and a regression defect factor.

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15. The system of claim 11, wherein the processor forecasts the number of software defects for the upcoming software release by multiplying the number of observed software defects for the baseline software release by the sum of the relative size of the upcoming software release and a refactoring factor.

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16. The system of claim 11, wherein the processor further determines a quality measurement for the upcoming software release based on the actual number of software defects for the upcoming software release relative to the forecasted number of software defects for the upcoming software release

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17. The system of 16, wherein the quality measurement is used by a project management system.

18. The system of claim 11, wherein number of software defects for the upcoming software release is used by a project management system.

19. The system of claim 11, wherein the output device is configured to graphically
5 depict information regarding the forecasted number of software defects.

20. The system of claim 11, wherein the input device is configured to allow a user to select the baseline software release.

10 21. A program storage device readable by a machine, tangibly embodying a program of instructions executable on the machine to perform method steps for predicting the number of software defects for an upcoming software release, the method steps comprising:

determining the relative size of the upcoming software release with respect to a
15 baseline software release; and

forecasting the number of software defects for the upcoming software release based on the relative size of the upcoming software release and the number of observed software defects for the baseline software release.

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22. The program storage device of claim 21, wherein the instructions for performing the step of determining the relative size of the upcoming software release includes instructions for performing the steps of:

- determining the number of new test requirements for the upcoming software
- 5 release;
- determining the number of test requirements for the baseline software release; and
- dividing the number of new test requirements for the upcoming software release
- by the number of test requirements for the baseline software release.

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